BRUHAT BANGALORE MAHANAGARA PALIKE

f the work:-Comprehensive development of Roads and Drains in Ward no 16 Rajarajeshwari Nagara ly Constituency Under PACKAGE - 2019-20-RRN-DIV(01)

Abstract Estimate

Description of Items	Unit	Quantity	Rate	Amount
noving & Refixing stone slabs of drains and pointing in C.M (1:3)P. No 27 I.No 5.33				
mprehensive Development of Roads And Drains and Foothpath in Khata Nagara, vappanagara,HMT Factory Surrounding main and cross roads and other rrounding roads in Jalahalli		6662.48		
mprehensive Development of Roads And Drains Ward No 16 of BBMP		8881.92		
Total	Sqm	**15544.40**	**111.30**	**1730091.16**
SRRB 300 - Excavation for road, drains and similar works KSRRB 300-1. Earthwork cavation by manual means in ordinary soil involving an average horizontal throw nto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides natly dressed, the disposed earth to be leveled neatly after breaking of clods mplete as per specifications complete as per specifications. MORTH Chapter 3 No 143 I.No 19.1				
omprehensive Development of Roads And Drains and Foothpath in Khata Nagara, yyappanagara,HMT Factory Surrounding main and cross roads and other urrounding roads in Jalahalli		4263.05		
omprehensive Development of Roads And Drains Ward No 16 of BBMP		4219.21		
Total	Cum	**8482.26**	**235.76**	**1999777.62**
SRRB M2900-1. Plain cement concrete 1:3:6 mix with crushed stone aggregate 40 m ominal size mechanically mixed, placed in foundation and compacted by vibration ncluding curing complete as per specifications MORTH Specification No. 408 KPWD R 2018-19 Page No. 254 I.No. 34.1				
omprehensive Development of Roads And Drains and Foothpath in Khata Nagara, yyappanagara,HMT Factory Surrounding main and cross roads and other urrounding roads in Jalahalli		18.50		
omprehensive Development of Roads And Drains Ward No 16 of BBMP		197.68		
Total	Cum	**216.18**	**4479.56**	**968391.28**
roviding and laying plain/reinforced cement concrete for side drains using M20 ominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal oarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well ompacted for walls and bottom including centering, shuttering, cost of materials, IOM of machinery, curing etc., complete excluding cost of steel as per MORTH pecification No. 1500, 1700, 2200. including cost of materials, labour, HOM complete is per specifications.Wall & bottom thickness 15cm KPWD S.R 2018-19 Page No. 271 I.No. 37.59.2				
Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		52.43		
Comprehensive Development of Roads And Drains Ward No 16 of BBMP		591.40		
	Cum	**643.83**	**7070.20**	**4552006.87**
KSRRB M2200-6. Providing T.M.T. steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification. MORTH Specification No.1600 & 2200 TMT Bars Fe 500(P-229/28.8.2) PWD SR 2018-19				
Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		4.19		
Comprehensive Development of Roads And Drains Ward No 16 of BBMP		36.04		
Total	Ton	**40.23**	**72326.98**	**2909801.20**

	Description of Items	Unit	Quantity	Rate	Amount
6	KSRB : Providing and constructing granite / trap / basalt size stone masonry in foundation with cement mortar, stone hammered dressed in courses not less than 20 cms high, bond stones at 2m. apart in each course including cost of materials, labour, curing complete as per specifications. KBS 5.1.13KSRB 5.2-3 : - do - cement mortar 1:6 KBS 5.1.13(P-255/5.6) PWD SR 2018-19				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		0.00		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		82.80		
	Total	Sqm	**82.80**	**4871.76**	**403381.73**
7	KSRB 5.14.1 : Providing and constructing precast concrete solid blocks with compressive strength not less than 3.5 Newton per sqm with cement mortar 1:4 masonry (quoin, Jamb, closer blocks) with solid concrete blocks of size 40x15x20cms conforming to I.S: 2185/1965 in superstructure including cost of materials, labour charges, scaffolding, curing complete as per specifications.-do with solid concrete blocks of size 400*200*200 mm (P-27/5.27.1) PWD SR 2018-19				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		2550.40		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		4007.20		
	Total	Sqm	**6557.60**	**966.72**	**6339363.07**
8	Providing ruled pointing to coursed stone masonry with cement mortar, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, HOM curing complete as per specifications.– do – cement mortar 1:3(P-256/34.13.2) PWD SR 2018-19				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		13784.00		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		8649.60		
	Total	Cum	**22433.60**	**150.52**	**3376705.47**
9	Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in For Coping , including cost of all materials, labour, HOM curing omplete as per specifications. Specification No. KBS 4.1, (P-255/34.11) PWD SR 2018-19				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		516.90		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		0.00		
	Total	Cum	**516.90**	**5599.98**	**2894629.66**
10	KSRB 4-1.6 ; Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregtes @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing omplete as per specifications. Specification No. KBS 4.1, 4.2KBS No.5.4KBS 5.1.13(P-27/4.6) PWD SR 2018-19				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		0.00		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		341.61		
	Total	Cum	**341.61**	**5747.32**	**1963341.99**
11	Providing & laying precast drain cover slab of 100 mm thickness in CM 1:3 including cost of all materials, labour, curing, transportation, loading, unloading etc, complete as per the directions of the Engineer In Charge.(0.9 x 0.60 x 0.1)Data rate				

	Description of Items	Unit	Quantity	Rate	Amount
	ensive Development of Roads And Drains and Foothpath in Khata Nagara, panagara,HMT Factory Surrounding main and cross roads and other unding roads in Jalahalli		2952.83		
	rehensive Development of Roads And Drains Ward No 16 of BBMP		2100.48		
	Total	Sqm	**5053.31**	**2337.00**	**11809573.79**
	ding and Fixing RCC Precast Cover Slab of 250 mm Thick for Drains in Cement rete M-20 using graded granite Jelly of 20 mm and down size with steel forcement, including form work lift charges, curing and concrete finished surface oth sides etc., as per drawing and the direction of Enginner-in-charge.Data Rate				
	prehensive Development of Roads And Drains and Foothpath in Khata Nagara, ppanagara,HMT Factory Surrounding main and cross roads and other rounding roads in Jalahalli		102.80		
	nprehensive Development of Roads And Drains Ward No 16 of BBMP		54.20		
	Total	Sqm	**157.00**	**5418.00**	**850626.00**
	moving and resetting of kerb stones.Page No. 270 Item No. 37.57/ PWD SR 2018-				
	mprehensive Development of Roads And Drains and Foothpath in Khata Nagara, yyappanagara,HMT Factory Surrounding main and cross roads and other rrounding roads in Jalahalli		6003.75		
	mprehensive Development of Roads And Drains Ward No 16 of BBMP		4054.50		
	Total	Rmt	**10058.25**	**104.94**	**1055512.76**
	roviding and fixing pre cast solid concrete kerb stones of size 450x150x500 mm nade out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting ete., complete.Page No. 27/ Item No. 5.29.2/ PWD SR 2018-19				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		5803.00		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		6097.00		
	Total	Sqm	**11900.00**	**467.46**	**5562774.00**
	KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 Page No. 180/ Item No. 24.1/ PWD SR 2018-19				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		3446.00		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		2719.20		
	Total	Sqm	**6165.20**	**84.80**	**522808.96**
16	KSRRB M300-53. Construction of embankment with approved material Gravel/Murrum with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement Table 300-2 complete as per specifications, including cost of gravel / murrum, watering charges & compaction by vibratory roller to 95% of modified proctors density. MORTH Specification No. 305 P.No 147 I.No 19.60				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		0.00		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		661.20		
	Total	Cum	**661.20**	**344.50**	**227783.40**
17	KSRB 14.6-1: Providing and laying heavy duty cobble stones 75mm thick interlock pavers, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM of machineries complete as per specifications.Specification No. KBS (Page No- 101).I.No 14.7 P.No 103				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		0.00		

	Description of Items	Unit	Quantity	Rate	Amount
	ensive Development of Roads And Drains Ward No 16 of BBMP		2088.00		
	Total	Sqm	**2088.00**	**1176.60**	**2456740.80**
	3 M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 ucket capacity including cutting and loading in tippers, trimming bottom and lopes, in accordance with requirements of lines, grades and cross sections, and porting to embankment location and complete as per specifications. MORTH ification No.301(pg no-143,S.Lno-19.14)KPWD S.R 2018-19				
	prehensive Development of Roads And Drains and Foothpath in Khata Nagara, ppanagara,HMT Factory Surrounding main and cross roads and other ounding roads in Jalahalli		1316.61		
	prehensive Development of Roads And Drains Ward No 16 of BBMP		2242.95		
	Total	Cum	**3559.55**	**84.42**	**300497.55**
	struction of granular sub-base Grading-V as Sub-base and drainage layer by viding coarse graded crushed stone aggregates of granite/ trap/basalt material, ing in a mechanical mix plant at OMC, Carriage of mixed material to work site, reading in uniform layers with motor grader on prepared surface and compacting th vibratory power roller to achieve the 98 % proctor density, complete as per ecifications. Clause 401 of MORTH V Revision. (pg no- 153,S.Lno-20.5)KPWD S.R 18-19				
	mprehensive Development of Roads And Drains and Foothpath in Khata Nagara, yyappanagara,HMT Factory Surrounding main and cross roads and other urrounding roads in Jalahalli		658.30		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		1808.50		
	Total	Cum	**2466.80**	**1994.92**	**4921071.65**
	KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406 Page No. 155/ Item No. 20.18/ PWD SR 2018-19				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		1009.40		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		1719.59		
	Total	Cum	**2728.99**	**2001.28**	**5461475.91**
1	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM ,including clearing of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per Specifications. MORTH Specification No. 502 Complete with all lead and lift and as per the direction of the Engineer-in-Charge. Page No. 158/ Item No. 21.6/ PWD SR 2018-19 Issue Rates				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		4388.69		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		7476.49		
	Total	Sqm	11865	**29.68**	**352158.54**
22	KSRRB 500-2. Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications.				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		20117.51		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		13838.41		
	Total	Sqm	**33955.92**	**5.30**	**179966.38**
23	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH /Chapter 5 Page No. 158/ Item No. 21.7/ PWD SR 2018-19 Issue Rates				

	Description of Items	Unit	Quantity	Rate	Amount
	...hensive Development of Roads And Drains and Foothpath in Khata Nagara, ...yappanagara,HMT Factory Surrounding main and cross roads and other ...rrounding roads in Jalahalli		44623.71		
	...mprehensive Development of Roads And Drains Ward No 16 of BBMP		44789.80		
	Total	Sqm	**89413.51**	**12.72**	**1137339.85**
	SRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications. Clause 505 of morth V revision using 40/60 TPH capacity H.M.P. with mechanical paver Gr-II (50mm to 75mm) with 4.5% VG-30 Bitumen. Page No. 160/ Item No. 21.17.6/ PWD SR 2018-19 Issue Rates				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		1225.31		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		1119.75		
	Total	Cum	**2345.06**	**6858.20**	**16082856.20**
	KSRRB M500-19. Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision. -using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 40 mm) with 5.4% VG-30 Bitumen (Pg:162,				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		980.25		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		895.80		
	Total	Cum	**1876.04**	**7911.84**	**14842959.96**
26	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface:- Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803 Page No. 182/ Item No. 24.15 PWD SR 2018-19				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		1622.25		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		1094.00		
	Total	Sqm	**2716.25**	**454.74**	**1235187.53**
27	KSRRB M800 Road markers / Road stud KSRRB M800-35. Providing and fixing of road stud 100x 100 mm, diecast in aluminium, resistant to corrosive effect of salt and grit, fitted with lense reflectors, installed in concrete or asphaltic surface by drilling hole 30 mm upto a depth of 60 mm and bedded in a suitable bituminous grout or epoxy mortar, all as per BS: 873 part 4:1973 complete as per specifications Page No. 189/ Item No. 24.41 PWD SR 2018-19				
	Comprehensive Development of Roads And Drains and Foothpath in Khata Nagara, Ayyappanagara,HMT Factory Surrounding main and cross roads and other Surrounding roads in Jalahalli		3142.00		
	Comprehensive Development of Roads And Drains Ward No 16 of BBMP		0.00		
	Total	No's	**3142.00**	**357.22**	**1122385.24**

Description of Item	Unit	Quantity	Rate	Amount
			SUB TOTAL	95259208.57
			GOODS AND SERVICE TAX(12%)	11431105.03
			OJECT MANAGEMENT AND CONSULATANCY(1.5%)	1650000.00
			DETAIL PROJECT REPORT(1.5%)	1650000.00
			MISCELLANEOUS	9686.40
			GRAND TOTAL	110000000.00

icate.

The workspot was inspected and work is found to be necessary.
The area comes within the Bruhat Bangalore Mahanagara Palike limits.
The rates adopted based on the PWD SR, Bangalore circle for year 2017-18. & (issued data rate)
The provisions made in the estimate are necessary and essential.

CIVIL QUALITY CONSULTANTS & ENGINEERS ★ Bangalore

Assistant Engineer,
Ward No 16
BBMP

Asst.Executive Engineer
Yeshwanthpura Sub Division
BBMP

Executive Engineer
RR Nagar Division
BBMP

TECHNICAL SANCTION

Rs: 110000000/- (Rs Eleven crore only) is accorded under the head: P-3744 CM Nava Nagarotham.

By CE(R.R.N.), P.N. 60-61

Registered as CE (R.R.N) No: 233/19-20 subject to conditions contained in enclosed memo No: 233/19-20 Date. 24/10/19

PA,

CE (R.R.N.)

ನಂ.: 114 ದಿನಾಂಕ: 8/7/2020

ರೂ. 11,00,00,000/- (eleven crore only)

ಅಂದಾಜು ಪಟ್ಟಿಗೆ ಆಡಳಿತಾತ್ಮಕ ಮಂಜೂರಾತಿ ನೀಡಿದೆ.

ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಆರ್.ಆರ್. ನಗರ ವಿಭಾಗ
ಬೆಂಗಳೂರು-72